



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/709,513

05/11/2004

Klaus Frohlich

A91988

3512

30008 7590 05/29/2008

GUDRUN E. HUCKETT DRAUDT  
SCHUBERTSTR. 15A  
WUPPERTAL, 42289  
GERMANY

EXAMINER

KENNEDY, JOSHUA T

ART UNIT

PAPER NUMBER

3679

MAIL DATE

DELIVERY MODE

05/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/709,513	<b>Applicant(s)</b> FROHLICH, KLAUS	
	<b>Examiner</b> JOSHUA T. KENNEDY	<b>Art Unit</b> 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Examiner notes that on 3/24/2008, the Board of Patent Appeals reversed the final rejection of 5/9/2006. However, Korean patent publication (KR 2002-0059077) has recently come to the Examiner's attention and this publication reads on, i.e., anticipates, the independent claim of the instant application and has a publication date prior to the instant filing date. Prosecution has been reopened with the approval of the Director and a new non-final rejection is presented below so that the issues raised may be fully and properly addressed.

Claim 13 has been cancelled.

Claims 1-12 have been examined.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Jeong (Korean Patent Publication 2002-0059077).

As to Claim 1. Jeong discloses a device for connecting bar ends, the device comprising:

a pipe section (110) for receiving bar ends of bars to be connected;  
clamping elements (122) each having an outer thread;  
wherein the pipe section has threaded bores (Fig 9) in which the clamping elements are secured by being screwed in; and  
wherein the clamping elements are arranged in a first row and a second row on the same side of the pipe section relative to a circumference of the pipe section (Fig 8b);  
wherein the clamping elements of the first row are staggered relative to the clamping elements of the second row in a longitudinal direction of the pipe section (Fig 8b).

As to Claim 2. Jeong discloses the clamping elements having ends for applying a clamping force on bar ends (Fig 9) and wherein the ends of the clamping elements apply the clamping force in different directions, respectively (Fig 7a).

As to Claim 5. Jeong discloses the threaded bores and the clamping elements of the first row have first longitudinal axes and wherein the threaded bores and the clamping elements of the second row have second longitudinal axes (Fig 8b), wherein the first and second longitudinal axes are at least approximately parallel to one another and are positioned in a plane laterally displaced relative to a diameter of the pipe section, respectively.

As to Claim 7. Jeong discloses the clamping elements of the first row each being positioned between two of the clamping elements of the second row, respectively (Fig 8b)

As to Claims 8 and 9. Jeong discloses a transverse element (113), arranged at least approximately at a longitudinal center of the pipe section (Fig 5a), projecting diametrically through the pipe section and is a clamping pin or a groove pin.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeong.

Jeong discloses the device significantly as claimed but does not disclose the first and second longitudinal axes of the two rows being arranged at an angle of less than or equal to 60° relative to one another, specifically wherein the angle is approximately 30°. It is not inventive to state the optimum values of an orientation of the screws. Although silent on the dimension, the screws of Jeong inherently have an orientation relative to one another. Through routine experimentation and optimization, it would have been

Art Unit: 3600

obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Jeong to have the two rows being arranged at an angle of less than or equal to  $60^\circ$  relative to one another, specifically wherein the angle is approximately  $30^\circ$  because this is merely the application of the of the expected level of skill on the part of one of ordinary skill. No new and unexpected results are produced.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Ecklesdafer (US Patent 5,154,652).

Jeong teaches the device as claimed but does not disclose that a longitudinal edge of the threaded bores is positioned at least approximately on a tangent of an inner pipe wall surface of the pipe section.

Ecklesdafer teaches a shaft coupling having a sleeve with a shaft inserted and where two "elongated fasteners tangentially engage... opposing sides of each shaft to prevent longitudinal displacement of the shafts relative to one another" (Col 2, Lines 17-21). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the bar connection of Jeong to have clamping elements that tangentially engage the opposing sides of each shaft as taught by Ecklesdafer to prevent longitudinal displacement of the shafts relative to one another.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeong in view of Hope (US Patent 4,666,326).

Jeong discloses the bar connection significantly as claimed but does not disclose each section of the pipe section that receives a bar end having at least one clamping screw that, relative to the circumference of the pipe section, is positioned essentially opposite the clamping elements of the first and second rows.

Hope teaches a similar bar connection having each section of the pipe section that receives a bar end having at least one clamping screw (Fig 1) that, relative to the circumference of the pipe section, is positioned essentially opposite the clamping elements of the first and second rows because "the pair of screws provides a strong grip and ensures that the sleeve fitting is fixedly located relative to the reinforcing bars." (Col 3, Lines 55-57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bar connection of Jeong to have a clamping screw positioned opposite the clamping elements of the first and second row as taught by Hope because the pair of screws provides a strong grip and ensures that the sleeve fitting is fixedly located relative to the reinforcing bars.

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeong in view of Mochizuki (US Patent 5,974,761).

Jeong disclose the bar connection as claimed but do not disclose each section of the pipe section that receives a bar end having at least one transverse (groove or clamping) pin that extends at least approximately at a right angle to a longitudinal axis of the pipe section and is arranged in immediate vicinity of an inner pipe wall.

Mochizuki teaches a splice sleeve from reinforcing bars similar to the bar connection as disclosed having a taper pin and corresponding hole adaptable to be used in conjunction with the sleeve of Jeong that is tangential to the reinforcing bar "to fasten the reinforcing bar to the supporting projections" (Col 2, Lines 45-49). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the sleeve of Jeong to have the hole and pin as taught by Mochizuki to fasten the reinforcing bar to the clamping projections.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA T. KENNEDY whose telephone number is (571)272-8297. The examiner can normally be reached on M-F: 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Joshua T. Kennedy/  
Examiner, Art Unit 3679  
5/19/2008

/Daniel P. Stodola/  
Supervisory Patent Examiner, Art Unit 3679

/DONALD HAJEC/  
Director, Technology Center 3600